

IN THE CLAIMS:

Claims 1-61 (Cancelled).

62. (Original) A photoluminescent device comprising:
- a) an excitation source; and
 - b) at least a first layer of photoluminescent phosphor particles adapted to be stimulated by said excitation source, wherein said phosphor particles have a weight average particle size of from about 0.1 μm to about 10 μm , a substantially spherical morphology and wherein at least about 80 weight percent of said particles are not larger than two times said average particle size.
63. (Original) A photoluminescent device as recited in Claim 62, wherein said phosphor particles have an average size of from about 0.3 μm to about 5 μm .
64. (Original) A photoluminescent device as recited in Claim 62, wherein said excitation source comprises a gas and wherein said gas comprises xenon.
65. (Original) A photoluminescent device as recited in Claim 62, wherein said excitation source comprises a gas and wherein said gas comprises mercury.
66. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise $\text{Y}_2\text{O}_3:\text{Eu}$.
67. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise $(\text{Y},\text{Gd})\text{BO}_3:\text{Eu}$.
68. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise $\text{Zn}_2\text{SiO}_4:\text{Mn}$.
69. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise $\text{BaMgAl}_x\text{O}_y:\text{Eu}$.
70. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise BaAl_xO_y .
71. (Original) A photoluminescent device as recited in Claim 62, wherein said particles comprise $\text{BaMgAl}_x\text{O}_y:\text{Mn}$.
72. (Original) A photoluminescent device as recited in Claim 62, wherein said layer is a substantially uniform layer of photoluminescent phosphor particles, said layer having an average thickness of not greater than about three times said average particle size.
73. (Original) A photoluminescent device as recited in Claim 62, wherein said device is

a plasma display panel.

74. (Original) A photoluminescent device as recited in Claim 62, wherein said device is a fluorescent lamp.

75. (Original) A photoluminescent device as recited in Claim 62, wherein said device is an LCD backlight.

76. (Original) A plasma display panel, comprising:

- a) a rear panel comprising a plurality of row electrodes;
- b) a front panel comprising a plurality of column electrodes, wherein said row electrodes and said column electrodes are in perpendicular relation to form a plurality of addressable x-y coordinates;
- c) a photoluminescent phosphor powder dispersed on a substrate disposed between said electrodes, wherein said phosphor powder comprises particles having a weight average particle size of not greater than about 5 μm and a particle size distribution wherein at least about 80 weight percent of said particles are not larger than two times said average particle size.

77. (Original) A plasma display panel as recited in Claim 76, wherein said particles have a substantially spherical morphology.

78. (Original) A plasma display panel as recited in Claim 76, wherein said average particle size is from about 0.3 μm to about 5 μm .

79. (Original) A plasma display panel as recited in Claim 76, wherein said particles have a particle size distribution wherein at least about 90 weight percent of said particles are not larger than about two times said weight average particle size.

80. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor particles comprise crystallites having an average crystallite size of at least about 25 nanometers.

81. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder is dispersed in a substantially uniform layer having an average thickness of not greater than about three times said average particle size.

82. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $\text{BaMgAl}_x\text{O}_y\text{:Eu}$.

83. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $\text{BaMgAl}_x\text{O}_y$ and from about 8 to about 12 atomic percent Eu and wherein said

excitation source comprises xenon gas.

84. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $\text{BaAl}_x\text{O}_y:\text{Mn}$.

85. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises BaAl_xO_y and from about 8 to about 12 atomic percent Mn and wherein said excitation source comprises xenon gas.

86. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $\text{Zn}_2\text{SiO}_4:\text{Mn}$.

87. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises Zn_2SiO_4 and from about 0.05 to about 2 atomic percent Mn and wherein said excitation source comprises xenon gas.

88. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $\text{Y}_2\text{O}_3:\text{Eu}$.

89. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises Y_2O_3 and from about 4 to about 6 atomic percent Eu and wherein said excitation source comprises xenon gas.

90. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $(\text{Y},\text{Gd})\text{BO}_3:\text{Eu}$.

91. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises $(\text{Y},\text{Gd})\text{BO}_3$ and from about 14 to about 20 atomic percent Eu and wherein said excitation source comprises xenon gas.

92. (Original) A plasma display panel as recited in Claim 76, wherein said phosphor powder comprises:

- a) first phosphor particles of $\text{BaMgAl}_x\text{O}_y:\text{Eu}$;
- b) second phosphor particles selected from the group consisting of $\text{Zn}_2\text{SiO}_4:\text{Mn}$, $\text{BaAl}_x\text{O}_y:\text{Mn}$ and mixtures thereof; and
- c) third phosphor particles selected from the group consisting of $\text{Y}_2\text{O}_3:\text{Eu}$, $(\text{Y},\text{Gd})\text{BO}_3:\text{Eu}$ and mixtures thereof.

Claims 93-205 (Cancelled).